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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,962	06/13/2006	Takafumi Matsumura	056205.57280US	7352

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EXAMINER	
RUSH, ERIC	
ART UNIT	PAPER NUMBER
2624	
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08/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,962	MATSUMURA ET AL.	
	Examiner	Art Unit	
	ERIC RUSH	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,4,6-11,13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,4,6-11,13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to the amendments and remarks received 26 May 2009. Claims 3, 4, 6 - 11, 13 and 15 - 20 are currently pending.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 3 – 4, 6 – 11, 13 and 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. U.S. Patent No. 6,970,234 in view of Chou U.S. Patent No. 7,200,250 and further in view of Swatton et al. WO 03/063065 A1.

- With regards to claim 3, Nagasaka et al. teach a personal identification device, comprising an infrared source for illuminating an infrared ray to a target to be identified, (Nagasaka et al., Column 4 Lines 4 – 27) and a light receiving element row facing the infrared source and containing a plurality of light receiving elements forming a line and having a elongated side which receive the infrared ray illuminated from said infrared source, (Nagasaka et al., column 4 Lines 4 - 27) and such that, wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row (Nagasaka et al.,

Column 3 Lines 56 - 67) when said target to be identified is relatively scanned with respect to said light receiving element row, (Nagasaka et al., Column 5 lines 47 - 58) a two-dimensional image representing a blood vessel pattern of said target to be identified is produced from outputs of said light receiving element row (Nagasaka et al., Column 5 Lines 47 – 58) and relative displacement information of said target to be identified, (Nagasaka et al., Column 4 Lines 37 - 58 the button along with the guided groove relay displacement information of said target to the personal identification device, i.e. correct position of the finger and/or distance from imaging unit, "The direction in which the entire finger is oriented is determined accordingly…") thereby performing personal identification based on the produced image, (Nagasaka et al., Column 7 Lines 33 - 43) wherein said light receiving element row is provided with a first filter member configured to transmit light of predetermined wavelengths. (Nagasaka et al., Column 4 Lines 21 - 27) Nagasaka et al. fail to explicitly teach wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row from a direction perpendicular to the elongated side of said light receiving element and a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row. Chou teaches wherein the device is so configured that said target to be identified is insertable

between the infrared source and the light receiving element row from a direction perpendicular to the elongated side of said light receiving element. (Chou, Figs. 3 and 4, Column 4 Lines 49 - 63) Chou fails to teach a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row. Swatton et al. teach a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row. (Swatton et al., Fig. 2 Element 55, Page 5 Lines 6 - 9) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Nagasaka et al. to include the teachings of Chou. This modification would have been prompted in order to incorporate a sweep-type imaging sensor into the system of Nagasaka et al. This would have been necessitated in order to allow for smaller and more compact identification systems. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined teachings of Nagasaka et al. in view of Chou with the teachings of Swatton et al. This modification would have been prompted in order to increase the resolution and contrast of the sensor by filtering out scattered light and allowing only substantially perpendicular components of the light to be received by the sensor, as suggested by Swatton et al., page 5 lines 8 - 9. This modification could have been completed using well known

techniques and would have yielded predictable results in that erroneous scattered light and would be suppressed thereby reducing the amount of noise present in the image.

- With regards to claim 4, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein said target to be identified is a human hand or finger. (Nagasaka et al., Column 5 Lines 47 - 58)

- With regards to claim 6, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein a position detecting device for detecting a position of said target to be identified is disposed, (Nagasaka et al., Column 4 Lines 38 - 58) and said two-dimensional image of said target to be identified is produced from the outputs of said light receiving element row and position information from said position detecting device. (Nagasaka et al., Column 5 Lines 47 – 58, "With a press of a switch, an image signal representing a hemal pattern is acquired")

- With regards to claim 7, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein an identified-target detecting

device for detecting the presence or absence of said target to be identified is disposed in a position away from said light receiving element row. (Nagasaka et al., Column 4 Lines 38 – 58, the button along with the guided groove relay displacement information of said target to the personal identification device, i.e. correct position of the finger and/or distance from imaging unit, and with the activation of the button the presence of the target is identified Column 5 Lines 47 - 58)

- With regards to claims 8 and 9, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 7. Nagasaka et al. fail to teach wherein said identified-target detecting device is disposed in plural, a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, which are detected by said plurality of identified-target detecting devices, and distance correction of said image in a scan direction is performed based on the speed of said target to be identified. Chou teaches wherein said identified-target detecting device is disposed in plural, (Chou, Figs. 4, 7, & 10, Column 3 Lines 50 - 63) a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, (Chou, Column 3 Line 50 – Column 4 Line 14) which are detected by said plurality of identified-target detecting devices, (Chou, Column 3 Line 50 – Column

4 Line 14, Column 5 Line 23 – Column 6 Line 8) and distance correction of said image in a scan direction is performed based on the speed of said target to be identified. (Chou, Fig. 10, Column 5 Line 23 – Column 6 Line 8, Column 7 Lines 5 - 11) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined teachings of Nagasaka et al. in view of Chou and further in view of Swatton et al. to include the teachings of Chou. This modification would have been prompted in order to incorporate a sweep-type imaging sensor into the system of Nagasaka et al. This would have been necessitated in order to allow for smaller and more compact identification systems.

- With regards to claim 10, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. is silent to wherein said light receiving element row contains a plurality of light receiving elements arrayed along a straight line. Examiner takes official notice of the fact that light receiving element rows contain a plurality of light receiving elements being arranged in a line is well known in the art. Therefore it would have been obvious to include such a light receiving element with the teachings of Nagasaka et al. to obtain image information in a standard format. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 11, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. is silent to wherein said light receiving element row contains a plurality of light receiving elements arrayed along a curved line. Examiner takes official notice of the fact that light receiving element rows contain a plurality of light receiving elements being arranged in a line or any other shape is well known in the art. Therefore it would have been obvious to include such a light receiving element with the teachings of Nagasaka et al. to obtain image information in a standard format consistent with the shape of a finger. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 13, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 10. Nagasaka et al. is silent to wherein an interval between two adjacent light receiving elements in said light receiving element row is from 0.02 mm to 0.5 mm. Examiner takes official notice of the fact that spacing between light receiving elements in a light receiving means being from 0.02 mm to 0.5 mm is well known in the art. Therefore it would have been obvious to include such spacing within this range with the teachings

of Nagasaka et al. in order to generate a detailed blood vessel image for identification purposes. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 15, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein said light source and said light receiving element row are disposed in a casing, (Nagasaka et al., Column 3 Line 53 – Column 4 Line 3) said device being configured to cause light from said light source to illuminate the finger inserted in said casing, (Nagasaka et al., Column 4 Lines 4 - 16) and said casing has a cavity in which the finger is inserted, (Nagasaka et al., Column 3 Line 53 – Column 4 Line 3) the depth of said cavity defining the elongated side. (Nagasaka et al., Column 4 Lines 4 – 16, Column 8 Lines 11 - 18)

- With regards to claims 16 and 17, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach the device comprising a C-shaped support member including a first member, a second member and a third member for connecting said first and second members to each other, (Nagasaka et al., Column 9 Lines 5 - 22) said infrared source being

mounted to said first member, (Nagasaka et al., Column 4 Lines 4 – 27, Column 9 Lines 5 - 22) and said light receiving element row being mounted to said second member, (Nagasaka et al., Column 9 Lines 5 - 22) said device operating such that when a finger is scanned over said light receiving element row. (Nagasaka et al., Column 4 Lines 4 – 27, Column 4 Lines 38 - 58)

- With regards to claim 18, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 15. Nagasaka et al. teach wherein said casing has a smooth inner surface to prevent a part of the infrared ray from said infrared source, which has been reflected by the finger, from entering said light receiving element row. (Nagasaka et al., Column 3 Line 63 – Column 4 Line 3)

- With regards to claim 19, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein personal identification is performed by comparing a previously registered feature parameter and a feature parameter of an image obtained from the outputs of said light receiving element row. (Nagasaka et al., Column 7 Lines 33 - 43)

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. U.S. Patent No. 6,970,234 in view of Chou U.S. Patent No. 7,200,250 and further in view of Swatton et al. WO 03/063065 A1 as applied to claim **6** above, and further in view of Asai et al. U.S. Patent No. 4,701,959.

- With regards to claim 20, Nagasaka et al. in view of Chou and further in view of Swatton et al. teach the personal identification device according to claim 6. Nagasaka et al. teach wherein said position detecting device is provided with a button capable of being pushed by the finger. (Nagasaka et al., Column 8 Lines 11 – 34) Nagasaka et al. fail to teach wherein cleaning means is mounted to said button, and a surface of said light receiving element row is cleaned with scan of said button. Asai et al. teach wherein cleaning means is mounted to said button, (Asai et al., Fig. 3) and a surface of said light receiving element row is cleaned with scan of said button. (Asai et al., Column 4 Lines 33 – 64) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined teachings of Nagasaka et al. in view of Chou and further in view of Swatton et al. to include the teachings of Asai et al. This modification would have been prompted because Nagasaka et al. show concern for a clean identification surface Column 4 Lines 51 - 60. Therefore a more proactive approach to cleaning such as that disclosed by Asai et al. would have been prompted for a more effective cleaning approach.

5. Claims 3 – 4, 6 – 11, 13 and 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. U.S. Patent No. 6,970,234 in view of Chou U.S. Patent No. 7,200,250 and further in view of Yoon et al. U.S. Patent No. 6,657,175.

- With regards to claim 3, Nagasaka et al. teach a personal identification device, comprising an infrared source for illuminating an infrared ray to a target to be identified, (Nagasaka et al., Column 4 Lines 4 – 27) and a light receiving element row facing the infrared source and containing a plurality of light receiving elements forming a line and having a elongated side which receive the infrared ray illuminated from said infrared source, (Nagasaka et al., column 4 Lines 4 - 27) and such that, wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row (Nagasaka et al., Column 3 Lines 56 - 67) when said target to be identified is relatively scanned with respect to said light receiving element row, (Nagasaka et al., Column 5 lines 47 - 58) a two-dimensional image representing a blood vessel pattern of said target to be identified is produced from outputs of said light receiving element row (Nagasaka et al., Column 5 Lines 47 – 58) and relative displacement information of said target to be identified, (Nagasaka et al., Column 4 Lines 37 - 58 the button along with the guided groove relay displacement information of said target to the personal

identification device, i.e. correct position of the finger and/or distance from imaging unit, "The direction in which the entire finger is oriented is determined accordingly...") thereby performing personal identification based on the produced image, (Nagasaka et al., Column 7 Lines 33 - 43) wherein said light receiving element row is provided with a first filter member configured to transmit light of predetermined wavelengths. (Nagasaka et al., Column 4 Lines 21 - 27) Nagasaka et al. fail to explicitly teach wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row from a direction perpendicular to the elongated side of said light receiving element and a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row. Chou teaches wherein the device is so configured that said target to be identified is insertable between the infrared source and the light receiving element row from a direction perpendicular to the elongated side of said light receiving element. (Chou, Figs. 3 and 4, Column 4 Lines 49 - 63) Chou fails to teach a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row. Yoon et al. teach a second filter member configured to allow transmission of only a component of incident light that enters substantially perpendicularly to said light receiving element row.

(Yoon et al., Fig. 6 Element 160, Column 6 Lines 48 - 54 and Column 1 Lines 16 - 20) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Nagasaka et al. to include the teachings of Chou. This modification would have been prompted in order to incorporate a sweep-type imaging sensor into the system of Nagasaka et al. This would have been necessitated in order to allow for smaller and more compact identification systems. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined teachings of Nagasaka et al. in view of Chou with the teachings of Yoon et al. This modification would have been prompted in order to increase the resolution and contrast of the sensor by filtering out scattered light and allowing only substantially perpendicular components of the light to be received by the sensor. The modification and inclusion of the light filter of Yoon et al. would allow for the recording of light from one portion of the finger to be independent of light from other portions of the finger. This modification could have been completed using well known techniques and would have yielded predictable results in that erroneous scattered light and would be suppressed thereby reducing the amount of noise present in the image.

- With regards to claim 4, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to

claim 3. Nagasaka et al. teach wherein said target to be identified is a human hand or finger. (Nagasaka et al., Column 5 Lines 47 - 58)

- With regards to claim 6, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein a position detecting device for detecting a position of said target to be identified is disposed, (Nagasaka et al., Column 4 Lines 38 - 58) and said two-dimensional image of said target to be identified is produced from the outputs of said light receiving element row and position information from said position detecting device. (Nagasaka et al., Column 5 Lines 47 – 58, "With a press of a switch, an image signal representing a hemal pattern is acquired")

- With regards to claim 7, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein an identified-target detecting device for detecting the presence or absence of said target to be identified is disposed in a position away from said light receiving element row. (Nagasaka et al., Column 4 Lines 38 – 58, the button along with the guided groove relay displacement information of said target to the personal identification device, i.e. correct position of the finger and/or

distance from imaging unit, and with the activation of the button the presence of the target is identified Column 5 Lines 47 - 58)

- With regards to claims 8 and 9, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 7. Nagasaka et al. fail to teach wherein said identified-target detecting device is disposed in plural, a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, which are detected by said plurality of identified-target detecting devices, and distance correction of said image in a scan direction is performed based on the speed of said target to be identified. Chou teaches wherein said identified-target detecting device is disposed in plural, (Chou, Figs. 4, 7, & 10, Column 3 Lines 50 - 63) a speed of said target to be identified is computed from a difference between passage times of one end of said target to be identified, (Chou, Column 3 Line 50 – Column 4 Line 14) which are detected by said plurality of identified-target detecting devices, (Chou, Column 3 Line 50 – Column 4 Line 14, Column 5 Line 23 – Column 6 Line 8) and distance correction of said image in a scan direction is performed based on the speed of said target to be identified. (Chou, Fig. 10, Column 5 Line 23 – Column 6 Line 8, Column 7 Lines 5 - 11) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined

teachings of Nagasaka et al. in view of Chou and further in view of Yoon et al. to include the teachings of Chou. This modification would have been prompted in order to incorporate a sweep-type imaging sensor into the system of Nagasaka et al. This would have been necessitated in order to allow for smaller and more compact identification systems.

- With regards to claim 10, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. is silent to wherein said light receiving element row contains a plurality of light receiving elements arrayed along a straight line. Examiner takes official notice of the fact that light receiving element rows contain a plurality of light receiving elements being arranged in a line is well known in the art. Therefore it would have been obvious to include such a light receiving element with the teachings of Nagasaka et al. to obtain image information in a standard format. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 11, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. is silent to wherein said light receiving element row contains a plurality of light receiving elements arrayed along a curved

line. Examiner takes official notice of the fact that light receiving element rows contain a plurality of light receiving elements being arranged in a line or any other shape is well known in the art. Therefore it would have been obvious to include such a light receiving element with the teachings of Nagasaka et al. to obtain image information in a standard format consistent with the shape of a finger. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 13, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 10. Nagasaka et al. is silent to wherein an interval between two adjacent light receiving elements in said light receiving element row is from 0.02 mm to 0.5 mm. Examiner takes official notice of the fact that spacing between light receiving elements in a light receiving means being from 0.02 mm to 0.5 mm is well known in the art. Therefore it would have been obvious to include such spacing within this range with the teachings of Nagasaka et al. in order to generate a detailed blood vessel image for identification purposes. This statement is taken to be admitted prior art or well-known in the art because applicant failed to traverse the Examiner's assertion of Official Notice.

- With regards to claim 15, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein said light source and said light receiving element row are disposed in a casing, (Nagasaka et al., Column 3 Line 53 – Column 4 Line 3) said device being configured to cause light from said light source to illuminate the finger inserted in said casing, (Nagasaka et al., Column 4 Lines 4 - 16) and said casing has a cavity in which the finger is inserted, (Nagasaka et al., Column 3 Line 53 – Column 4 Line 3) the depth of said cavity defining the elongated side. (Nagasaka et al., Column 4 Lines 4 – 16, Column 8 Lines 11 - 18)

- With regards to claims 16 and 17, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. teach the device comprising a C-shaped support member including a first member, a second member and a third member for connecting said first and second members to each other, (Nagasaka et al., Column 9 Lines 5 - 22) said infrared source being mounted to said first member, (Nagasaka et al., Column 4 Lines 4 – 27, Column 9 Lines 5 - 22) and said light receiving element row being mounted to said second member, (Nagasaka et al., Column 9 Lines 5 - 22) said device operating such that when a finger is scanned over said

light receiving element row. (Nagasaka et al., Column 4 Lines 4 – 27, Column 4 Lines 38 - 58)

- With regards to claim 18, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 15. Nagasaka et al. teach wherein said casing has a smooth inner surface to prevent a part of the infrared ray from said infrared source, which has been reflected by the finger, from entering said light receiving element row. (Nagasaka et al., Column 3 Line 63 – Column 4 Line 3)

- With regards to claim 19, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 3. Nagasaka et al. teach wherein personal identification is performed by comparing a previously registered feature parameter and a feature parameter of an image obtained from the outputs of said light receiving element row. (Nagasaka et al., Column 7 Lines 33 - 43)

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. U.S. Patent No. 6,970,234 in view of Chou U.S. Patent No. 7,200,250 and further in view of Yoon et al. U.S. Patent No. 6,657,175 as applied to claim 6 above, and further in view of Asai et al. U.S. Patent No. 4,701,959.

- With regards to claim 20, Nagasaka et al. in view of Chou and further in view of Yoon et al. teach the personal identification device according to claim 6. Nagasaka et al. teach wherein said position detecting device is provided with a button capable of being pushed by the finger. (Nagasaka et al., Column 8 Lines 11 – 34) Nagasaka et al. fail to teach wherein cleaning means is mounted to said button, and a surface of said light receiving element row is cleaned with scan of said button. Asai et al. teach wherein cleaning means is mounted to said button, (Asai et al., Fig. 3) and a surface of said light receiving element row is cleaned with scan of said button. (Asai et al., Column 4 Lines 33 – 64) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined teachings of Nagasaka et al. in view of Chou and further in view of Yoon et al. to include the teachings of Asai et al. This modification would have been prompted because Nagasaka et al. show concern for a clean identification surface Column 4 Lines 51 - 60. Therefore a more proactive approach to cleaning such as that disclosed by Asai et al. would have been prompted for a more effective cleaning approach.

Response to Arguments

7. Applicant's arguments with respect to claim 3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fujieda et al. U.S. Patent No. 6,011,860; which is directed to a fingerprint collation system.
- Bowker et al. U.S. Patent No. 5,812,252; which is directed to a fingerprint acquisition system.
- Metz et al. U.S. Patent No. 6,061,463; which is directed to a holographic fingerprint device.
- Tsutsui et al. U.S. Patent No. 5,448,659; which is directed to a waveguide-type image transmission device.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC RUSH whose telephone number is (571)270-3017. The examiner can normally be reached on 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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